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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,970	10/24/2003	David A. Boyles	4775-4	1817

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EXAMINER

BOYKIN, TERRESSA M

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/692,970	Applicant(s) BOYLES ET AL.	
	Examiner Terressa M. Boykin	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7-04</u> . | 6) <input type="checkbox"/> Other: _____  |

**Claim Warning**

Applicant is advised that should claim 8 be found allowable, claim 39 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 3, 4, 5, 8 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4460798 abstract, col. 2 lines 3-17.**

With regard to applicants' claim 1 note that US 4460798 discloses asymmetrical bisphenols such as 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane are prepared by an improved process wherein a hydroxyphenyldialkylcarbinol is reacted with a phenol in the presence of a hydrogen halide catalyst. According to the improved process, the

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carbinol is added to a mixture of the phenol and hydrogen halide under conditions maintaining a low carbinol concentration in the reaction mixture. This low concentration is preferably maintained by adding the carbinol in the form of a solution in a portion of the phenol. Note further that the reference discloses the 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane as only one of the many asymmetrical bisphenols that may be produced.

With regard to claims 2, 3, and 4, note that the reference discloses in col. 2 lines 3 – 17 many spacer groups that may be selected.

With regard to claim 5 note also col. 2 lines 3-17 as well as examples.

With regard to claims 8 and 39 note that the 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane of the reference is a derivative of the bisphenol of applicants' claim 1.

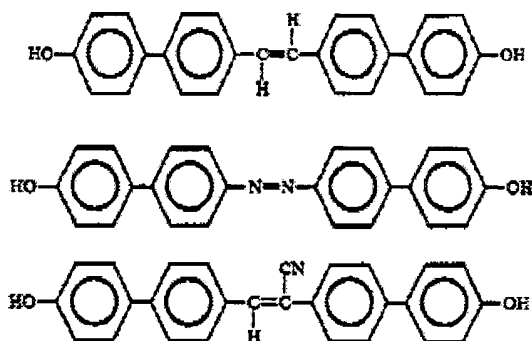
**Claims 6, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5290656 see Figures 1-9, col. 5 line 58 - col. 6 line 34.**

USP 5290656 discloses the use of 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane and derivatives thereof to prepare a resin composition as disclosed therein. Note Figures 1-9 as well as col. 5 line 58 through col. 6 line 34.

**Claims 9 - 16 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 4841009. see abstract, cols. 7-8 lines 35 through 60, cols 9, 10, 11 and 12,**

**USP 4841009** discloses substantially linear monomeric compositions which

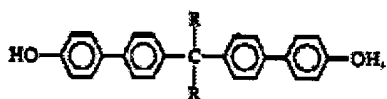
can be polymerized with one or more difunctional monomers to give novel polymeric compositions having liquid crystal properties. This reference is also directed to a process for preparation of the novel substantially linear monomeric compositions. Illustrative of the preferred substantially linear monomeric compositions are:



**Additionally, claims 9 - 16 are also rejected under 35 U.S.C. 102(b) as being anticipated by USP 5319149 see col. 1 lines 10 -45 and col. 3.**

**USP 5319149** discloses compositions of matter, and more particularly to polycarbonates and precursors thereof.

Containing Bis[4-(4-hydroxyphenyl)-phenyl]alkanes, as illustrated by 2,2-bis[4-(4-hydroxyphenyl)-phenyl]propane,



which may be prepared by the reaction of a bisphenol A ester or a similar compound with a p-trialkyltin-substituted anisole, followed by demethylation with a Lewis acid such as boron tribromide. Polycarbonates prepared therefrom are ductile and have high

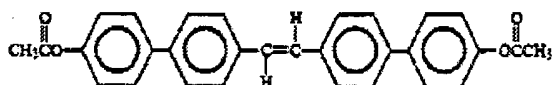
glass transition temperatures.

**Claims 17 - 24 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 6055096 see abstract, cols. 7 lines 10-15.**

**USP 6055096** discloses a film having a retardation of 30 nm or less can be easily prepared from a polycarbonate resin, and the polycarbonate resin is suitable for a protective film of a polarizing plate having high capability. The polycarbonate resin, which contains a UV absorbent, is effected particularly as a protective film of a polarizing plate. Note col. lines 10 – 15.

**Claims 25 - 32 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 4841009 cols. 7 and 8 lines 35 through 60, cols. 15-17 line 16 and claims 23.**

As noted previously, **USP 4841009** discloses substantially linear monomeric compositions which can be polymerized with one or more difunctional monomers to give novel polymeric compositions having liquid crystal properties. Note that one of the many monomers sited therein include:



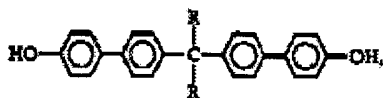
which anticipates applicants claimed language and structural formula. With regard to applicants' Y end group, note that the reference discloses and claims that the end group of the Ar moiety has at least one electron withdrawing group in one or more of the ortho

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or para positions which would anticipate applicants claimed language.

**Claims 33- 38 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 5319149 see col. 1 lines 10 –45 and col. 3.**

**USP 5319149** discloses compositions of matter, and more particularly to polycarbonates and precursors thereof. Containing Bis[4-(4-hydroxyphenyl)-phenyl]alkanes, as illustrated by 2,2-bis[4-(4-hydroxyphenyl)-phenyl]propane, which may be prepared by the reaction of a bisphenol A ester or a similar compound with a p-trialkyltin-substituted anisole, followed by demethylation with a Lewis acid such as boron tribromide. Polycarbonates prepared therefrom are ductile and have high glass transition temperatures.



With regard to applicants' OH end group, the reference discloses that the structural formulas include those wherein the free valence bonds are in the meta or para positions.

Thus in view of the above, there appears to be no significant difference between each the references and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

### **35 USC 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically

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disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 44607798 see abstract, claims.**

With regard to claim 6, 7 wherein a polymer or resin comprises the bisphenol of applicants' claim 1, note that **US 4460798** discloses asymmetrical bisphenols such as 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane. USP 5290656 uses this 2-(3-hydroxyphenyl)-2-(4-hydroxyphenyl)propane to prepare a resin composition. Note Figures 1-9 as well as col. 5 line 58 through col. 6 line 34. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the asymmetrical bisphenol moiety as described in USP 5290656 since the reference clearly discloses such bisphenol may be employed to produce the resin composition therein.

### **Correspondence**

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is ( **571-272-1700**).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb



Examiner Terressa Boykin  
Primary Examiner  
Art Unit 1711